

Forest Insect and Disease Management  
P.O. Box 5895, Asheville, N.C. 28803

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Report No. 79-1-23

May 31, 1979

Mr. Ralph C. Winkworth, Director  
Division of Forest Resources  
Dept. of Natural & Economic Resources  
P.O. Box 27687  
512 N. Salisbury Street  
The Archdale Bldg., 10th Floor  
Raleigh, North Carolina 27611

Dear Mr. Winkworth:

About 4 months ago, Don Rogers brought a damaged eastern white pine sample to our office for pest identification. The sample was affected by the pine leaf chermid, Pineus pinifoliae (identified by Jim McGraw, NCDORA). After the insect attack, two fungi (Bifusella linearis and a species of Lophodermium) defoliate the affected branches.

The affected counties in western North Carolina have been visited several times by Bill Hoffard, Bob Anderson and myself to determine the magnitude of the problem on eastern white pine. The most severely affected trees are located around Highlands, North Carolina, but the distribution appears to coincide with the natural range of red spruce (it's alternate host, figure 1). There was an outbreak caused by this pest in the 40's and we may be leading up to another similar situation. Even though some trees may experience growth loss or in some cases die, control measures are not available and normally are not needed.

The following gives a brief outline of the biology of the pine leaf chermid:

The insect has a complex two-year life cycle in which it attacks both red spruce and eastern white pine. The overwintering stage is found on spruce at the base of the buds where it causes a cone-like gall to form. In the spring, this gall cracks open, allowing the winged stage to fly to eastern white pine needles. Here sap is sucked from the needles, causing a yellowing. Eggs are laid and crawlers descend to the new shoots. At this stage white wax develops over their bodies as they continue feeding.

By late spring, the new shoots have begun to droop and by summer, affected parts of the trees may die (see attached pictures).

To alert people to the problem and gain more information on the distribution of the pine leaf chermid, our office is preparing a color photo-illustrated "Pest Alert", which describes damage symptoms, insect appearance, etc. We will forward a supply immediately upon publication.

HAROLD W. FLAKE  
Field Office Representative

Enclosures(5)

cc: Coleman Doggett, NC Div. of Forestry, Raleigh  
Don Rogers, NC Div. of Forestry, Morganton  
James McGraw, NC State Univ., Raleigh  
Toko